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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/435,770	11/08/1999	TAKUO YAMAMOTO	YAMAMOTO=16A	5666

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BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

EXAMINER	
FRONDA, CHRISTIAN L	

ART UNIT	PAPER NUMBER
1652	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/435,770	YAMAMOTO ET AL.	
	Examiner	Art Unit	
	Christian L Fronda	1652	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 6 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☒ The proposed amendment(s) will not be entered because:

   (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *See Continuation Sheet.*

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☐ The a)☐ affidavit, b)☐ exhibit, or c)☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1-13,57 and 58*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

Continuation of 2. NOTE: Claims 1, 9, and 13 as amended would be rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an isolated non-reducing saccharide-forming enzyme obtainable from Arthrobacter sp. S34 (FERM BP-6450) comprising an amino acid sequence as set forth in SEQ ID NO:1; does not reasonably provide enablement for any non-reducin saccharide-forming enzyme having an amino acid sequence that is at least 80% identical to SEQ ID NO: 1 or any non-reducing saccharide-forming enzyme obtainable from any microorganism of the genus Arthrobacter. he specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Applicants' arguments filed April 22, 2004, have been fully considered but they are not persuasive. Applicant's position is that th specification provides enablement since it is asserted that it would be easy for one of ordinary skill in the art to replace one or more amino acids in SEQ ID NO: 1 to make the claimed invention. The Examiner disagrees for reasons of record as supplemented below.

SEQ ID NO: 1 consists of 756 amino acid residues. To have at least 80% identity to SEQ ID NO: 1, an amino acid sequence ca have no more than 151 amino acid residues that are different from SEQ ID NO: 1. The specification has not provided guidance as to the specific amino acid residues that can be changed without affecting enzyme activity nor has the specification provided guidance for specifi amino acid residues that cannot be changed without affecting enzyme activity. In absence of such guidance, one of ordinary skill in the art must perform an enormous amount experimentation to search and screen for the amino acid residues that can be changed and yet sti retain enzyme activity. The cited references of Cunningham et al. and Holm et al. do not provide teachings regarding which 151 amino acid residues of SEQ ID NO: 1 can be changed without affecting enzyme activity. Thus, the amount of experimentation to make the claimed invention is undue and outside the scope of routine experimentation.

The Examiner disagrees with Applicants' position that it would be easy for one of ordinary skill in the art to clone the DNA encoding the enzyme of the present invention since Teachings regarding searching for or screening for the claimed invention is not guidance for making the claimed invention. One of ordinary skill in the art must search for the DNA encoding the claimed enzyme in any microorganism of the genus Arthrobacter, express the DNA and isolate the produced enzyme, and then determine whether the enzyme has the recited properties. Thus, the amount of experimentation to make the claimed invention is undue and outside the scope of routine experimentation..

PONNATHAPU ACHUTAMURTHY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600